6,959,436 - 06/7/05

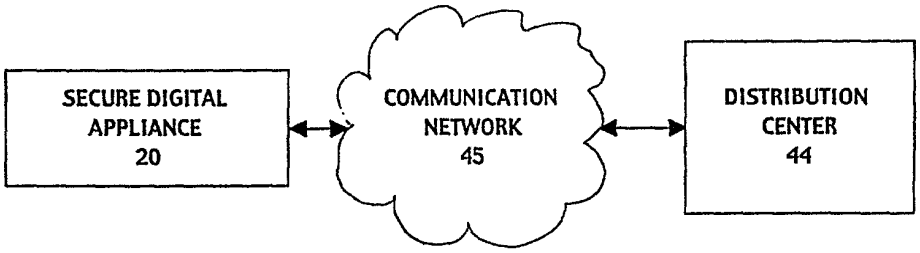
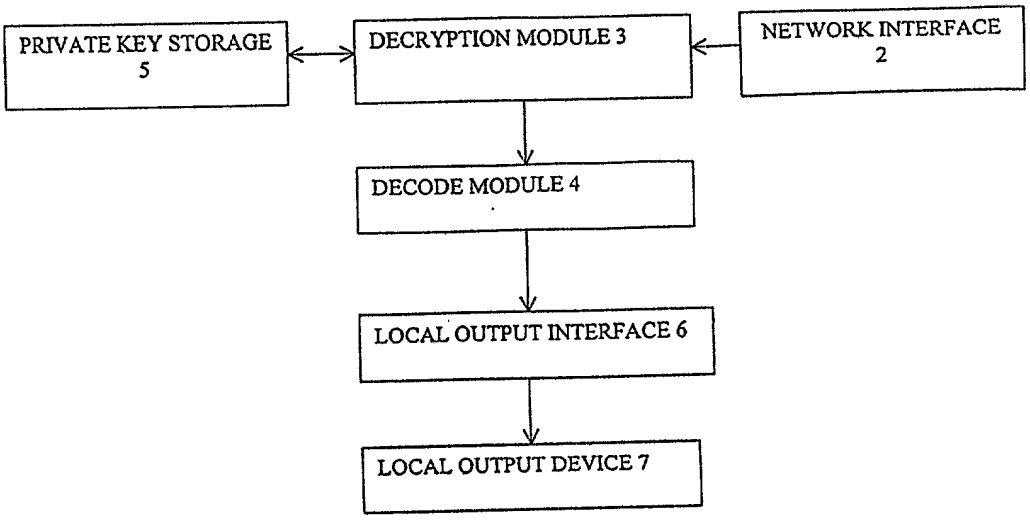


FIG. 1


PRIVATE KEY STORAGE 5
DECRYPTION MODULE 3
NETWORK INTERFACE 2
DECODE MODULE 4
LOCAL OUTPUT INTERFACE 6
LOCAL OUTPUT DEVICE 7

20

FIGURE 2

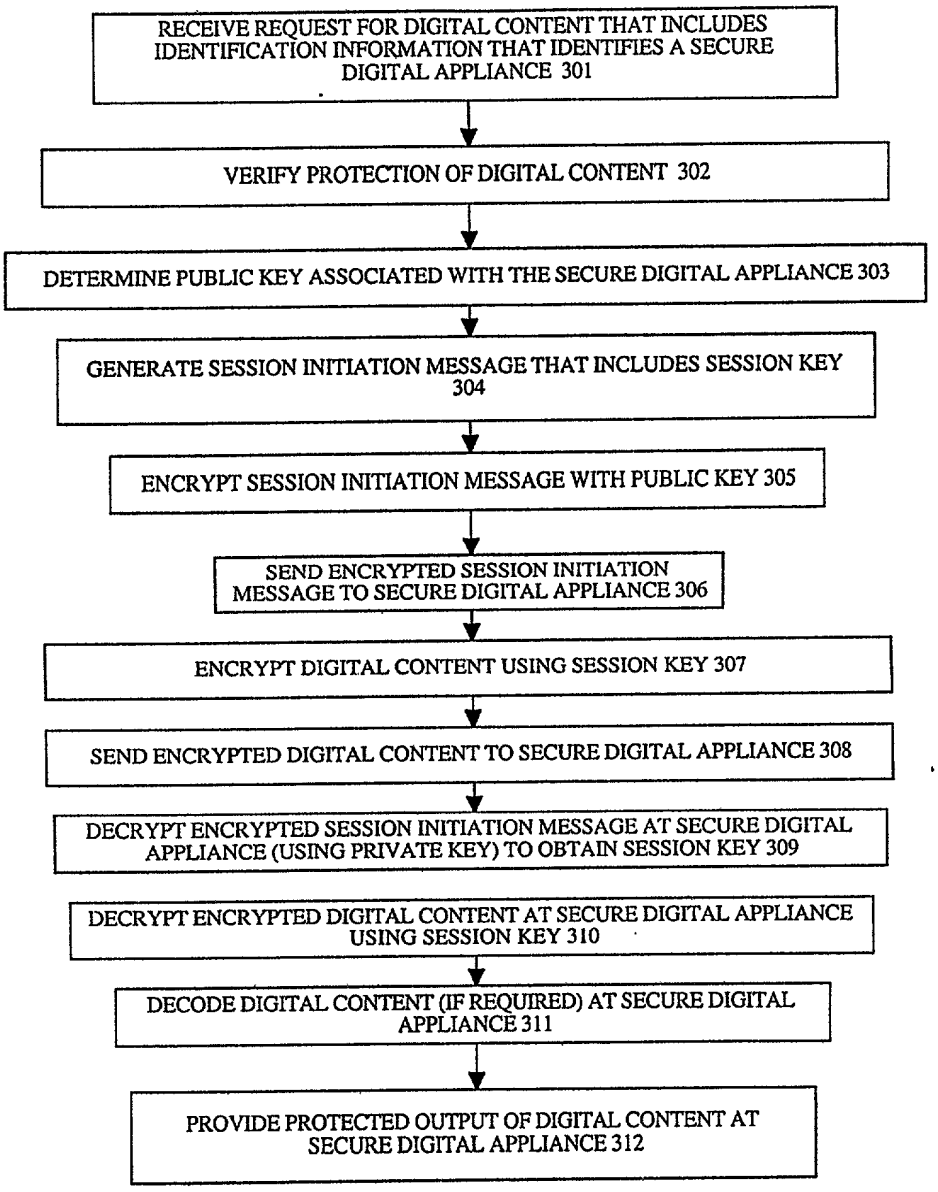

RECEIVE REQUEST FOR DIGITAL CONTENT THAT INCLUDES IDENTIFICATION INFORMATION THAT IDENTIFIES A SECURE DIGITAL APPLIANCE 301
VERIFY PROTECTION OF DIGITAL CONTENT 302
DETERMINE PUBLIC KEY ASSOCIATED WITH THE SECURE DIGITAL APPLIANCE 303
GENERATE SESSION INITIATION MESSAGE THAT INCLUDES SESSION KEY 304
ENCRYPT SESSION INITIATION MESSAGE WITH PUBLIC KEY 305
SEND ENCRYPTED SESSION INITIATION MESSAGE TO SECURE DIGITAL APPLIANCE 306
ENCRYPT DIGITAL CONTENT USING SESSION KEY 307
SEND ENCRYPTED DIGITAL CONTENT TO SECURE DIGITAL APPLIANCE 308
DECRYPT ENCRYPTED SESSION INITIATION MESSAGE AT SECURE DIGITAL APPLIANCE (USING PRIVATE KEY) TO OBTAIN SESSION KEY 309
DECRYPT ENCRYPTED DIGITAL CONTENT AT SECURE DIGITAL APPLIANCE USING SESSION KEY 310
DECODE DIGITAL CONTENT (IF REQUIRED) AT SECURE DIGITAL APPLIANCE 311
PROVIDE PROTECTED OUTPUT OF DIGITAL CONTENT AT SECURE DIGITAL APPLIANCE 312
300

FIGURE 3

FOR EXAMINATION PURPOSES

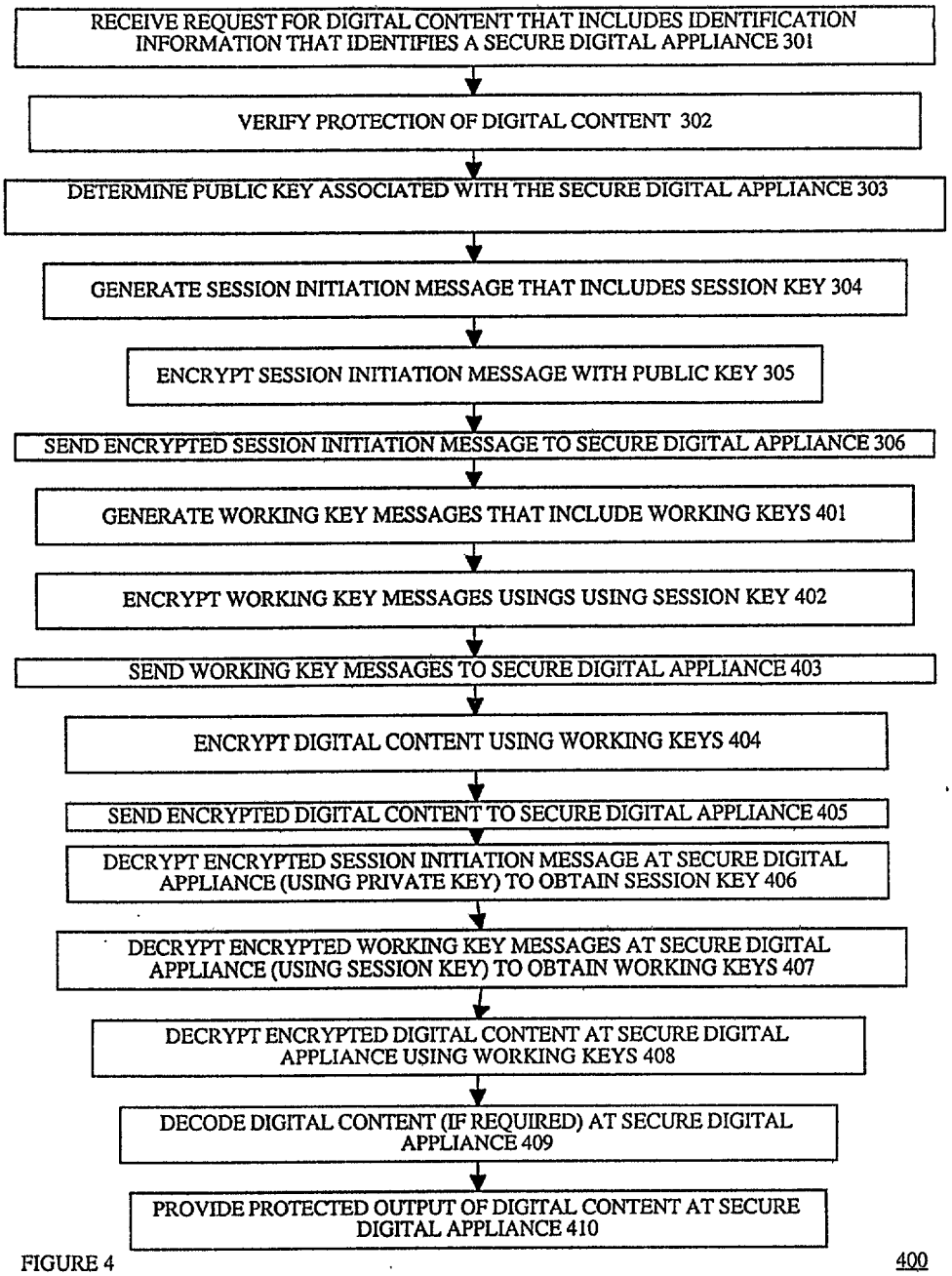


FIGURE 4

400

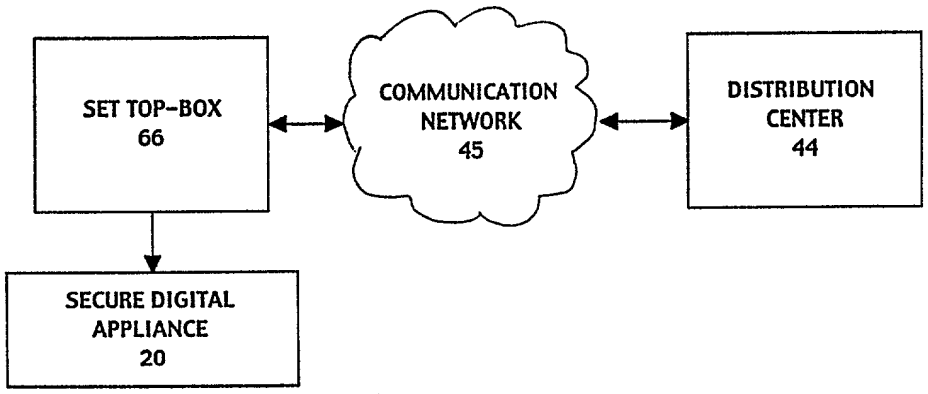

SET TOP-BOX
66
COMMUNICATION
NETWORK
45
DISTRIBUTION
CENTER
44
SECURE DIGITAL
APPLIANCE
20

FIG. 5

500

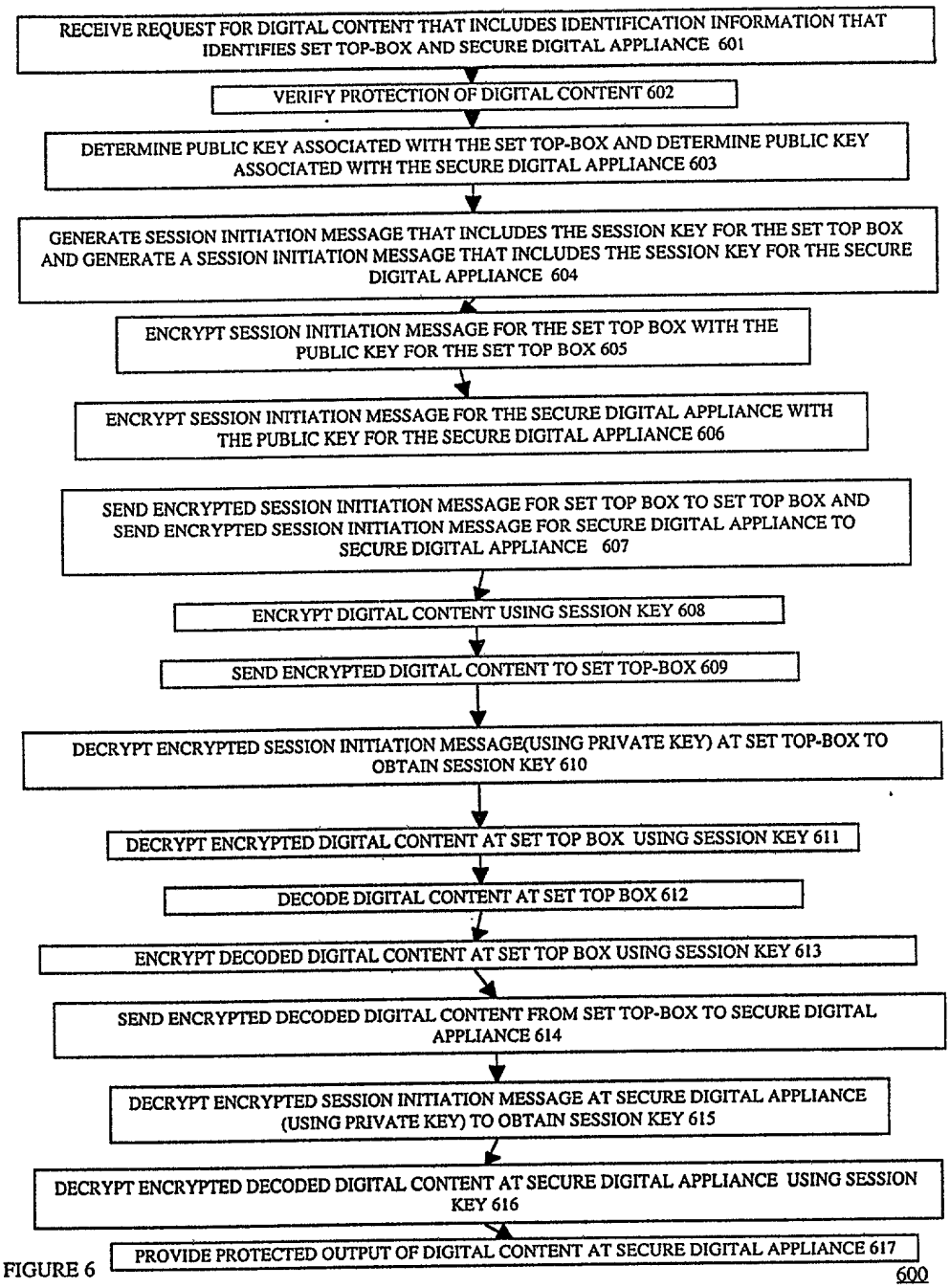

RECEIVE REQUEST FOR DIGITAL CONTENT THAT INCLUDES IDENTIFICATION INFORMATION THAT IDENTIFIES SET TOP-BOX AND SECURE DIGITAL APPLIANCE 601
VERIFY PROTECTION OF DIGITAL CONTENT 602
DETERMINE PUBLIC KEY ASSOCIATED WITH THE SET TOP-BOX AND DETERMINE PUBLIC KEY ASSOCIATED WITH THE SECURE DIGITAL APPLIANCE 603
GENERATE SESSION INITIATION MESSAGE THAT INCLUDES THE SESSION KEY FOR THE SET TOP BOX AND GENERATE A SESSION INITIATION MESSAGE THAT INCLUDES THE SESSION KEY FOR THE SECURE DIGITAL APPLIANCE 604
ENCRYPT SESSION INITIATION MESSAGE FOR THE SET TOP BOX WITH THE PUBLIC KEY FOR THE SET TOP BOX 605
ENCRYPT SESSION INITIATION MESSAGE FOR THE SECURE DIGITAL APPLIANCE WITH THE PUBLIC KEY FOR THE SECURE DIGITAL APPLIANCE 606
SEND ENCRYPTED SESSION INITIATION MESSAGE FOR SET TOP BOX TO SET TOP BOX AND SEND ENCRYPTED SESSION INITIATION MESSAGE FOR SECURE DIGITAL APPLIANCE TO SECURE DIGITAL APPLIANCE 607
ENCRYPT DIGITAL CONTENT USING SESSION KEY 608
SEND ENCRYPTED DIGITAL CONTENT TO SET TOP-BOX 609
DECRYPT ENCRYPTED SESSION INITIATION MESSAGE(USING PRIVATE KEY) AT SET TOP-BOX TO OBTAIN SESSION KEY 610
DECRYPT ENCRYPTED DIGITAL CONTENT AT SET TOP BOX USING SESSION KEY 611
DECODE DIGITAL CONTENT AT SET TOP BOX 612
ENCRYPT DECODED DIGITAL CONTENT AT SET TOP BOX USING SESSION KEY 613
SEND ENCRYPTED DECODED DIGITAL CONTENT FROM SET TOP-BOX TO SECURE DIGITAL APPLIANCE 614
DECRYPT ENCRYPTED SESSION INITIATION MESSAGE AT SECURE DIGITAL APPLIANCE (USING PRIVATE KEY) TO OBTAIN SESSION KEY 615
DECRYPT ENCRYPTED DECODED DIGITAL CONTENT AT SECURE DIGITAL APPLIANCE USING SESSION KEY 616
PROVIDE PROTECTED OUTPUT OF DIGITAL CONTENT AT SECURE DIGITAL APPLIANCE 617
600

FIGURE 6